

MCV4U Quiz #4 Exponential and Logarithmic Functions

Name

1. Differentiate.

a) $f(x) = \log_{10}(3x + 1)^4$

b) $f(x) = \sqrt{x + e^{1-x^2}}$

c) $f(x) = (x - \ln x)(2^{x^2})$

2. Find the intervals of increase and decrease for $f(x) = x^2 e^{-x}$.

3. Find the intervals of concavity for $f(x) = x \ln(x^2)$.